CALIFORNIA, INSTITUTE OF TECHNOLOGY

PASADENA, CALIFORNIA 01125

DIVISION OF BIOLOGY 156-29

October 28, 1976

Dr. A. Karim Ahmed Natural Resources Defense Council, Inc. 15 West 44th Street New York, New York 10036

Dear Dr. Ahmed:

I am pleased to support the petition of the Environmental Defense Fund and the National Resources Defense Council to the Secretary of Health, Education and Welfare concerning recombinant DNA activities. This petition has two components: the first requests the Secretary to promulgate interim regulations to make the present NIH Guidelines concerning recombinant DNA research binding on all parties engaged in recombinant DNA research in the United States. The second requests the Secretary to conduct a "legislative-type" hearing to obtain very broadly based testimony which might guide a reformulation of the present recombinant DNA Guidelines, taking into consideration issues not addressed and points of view not presented during their development.

The Guidelines have been developed out of the concept that there is a potential hazard to public health in certain forms of recombinant DNA research. It is evident that this hazard is not restricted to recombinant DNA research conducted with the aid of NIH (or other Federal) funds. I therefore support their extension to cover all research activity in this field, however supported and wherever performed. This research does not require elaborate facilities and large capital investment. There is, therefore, no reason to believe that it will be limited to large institutions or industrial concerns with proven records of responsibility. Further, the virtual certainty of the development of new techniques and of the extension of these techniques to additional organisms and higher life forms will require a free flow of information, a continuing updating of guidelines, and the continuing scrutiny of this field of research by a body which will endeavor to reflect the public interest.

The need to consider the reformulation of the Guidelines derives from the perception that they were developed from too narrow a perspective. In my opinion the Guidelines were developed to address solely the immediate medical

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hazards that might arise in the conduct of such research. The Guidelines do not address what I perceive as the larger, potential ecological and evolutionary hazards implicit in this research. Nor do the Guidelines address the potential significance of the availability of this new technology - developed by scientists to solve their own scientific problems - to other diverse sectors of our society, which may wish to use it for their own ends.

I believe the Guidelines do not provide sufficient recognition of the fact that we are here creating novel living organisms - unprecedented in the evolutionary order. As living organisms they are self-perpetuating and destined to their own individual evolution. I do not believe we can predict the properties of these organisms - created by the fusion of genes from disparate species - or their subsequent evolution, or their impact, present and future, on the existent biosphere. We do not know that there is a hazard here but neither do we know there is not. If such hazard exists or develops it will be in this instance uniquely irreversible. I believe a thoughtful reformulation of the Guidelines to take these circumstances into account would be most appropriate.

Sincerely yours.

Robert L. Sinsheimer

Robert P. Surname

Chairman